

Amendments to the Claims

1. **(Previously Presented)** A method for polishing an object by using an abrading surface made of abrasive particles and a binder, said method comprising:

polishing the object by the abrading surface while supplying a liquid not containing any abrasive particles for a determined time period; and

further polishing the object by the abrading surface while supplying abrasive particles so as to perform additional removal of a surface material to remove a specific film thickness.

2. **(Previously Presented)** A method according to claim 1, wherein said further polishing to remove the surface material is performed with the abrading surface by supplying a slurry containing abrasive particles to the abrading surface.

3. **(Previously Presented)** A method according to claim 1, wherein said further polishing to remove the surface material comprises:

polishing while concurrently dressing the abrading surface with a liquid not containing abrasive particles to thereby generate free abrasive particles therefrom.

Claim 4 (Canceled)

5. **(Previously Presented)** A polishing apparatus for polishing a surface of an object, said polishing apparatus comprising:

a holder for holding the object;

an abrading surface comprising abrasive particles and a binder;

a mechanism for pressing the surface of the object to said abrading surface while producing a sliding motion over a polishing interface;

a device for supplying a liquid not containing abrasive particles to the polishing interface; and

a surface material removal device for performing additional material removal by supplying abrasive particles on said abrading surface, said surface material removal device being integrally mounted in said polishing apparatus.

6. **(Previously Presented)** A polishing apparatus according to claim 5, wherein said surface material removal device is a device for supplying a slurry containing abrasive particles to the polishing interface.

7. **(Previously Presented)** A polishing apparatus according to claim 5, wherein said surface material removal device is a device for dressing said abrading surface so as to release abrasive particles from said abrading surface.

8. **(Previously Presented)** A polishing apparatus according to claim 5, further comprising:
first polishing means for polishing while supplying a liquid not containing abrasive particles to the polishing interface; and
second polishing means for polishing while supplying a slurry containing abrasive particles to the polishing interface.

Claims 9-53 (Canceled)

54. **(Previously Presented)** A method for polishing an object using an abrading surface made of abrasive particles and a binder binding the abrasive particles, said method comprising:
dressing the abrading surface to shape the abrading surface by a dresser prior to a polishing process;
pressing the object against the abrading surface; and
polishing the object by making a sliding motion between a surface of the object and the abrading surface.

55. **(Previously Presented)** A method according to claim 54, wherein a surface roughness of the abrading surface is less than $\pm 30\mu\text{m}$ after said dressing process.

56. **(Previously Presented)** A method according to claim 54, wherein the abrading surface is a surface of an abrading plate, the abrading plate being shaped by pressing while in a container during a manufacturing process of the abrading plate.

57. **(Previously Presented)** A method according to claim 54, wherein a ratio of the abrasive particles and a material of the binder is 1:x, where x is not less than 0.5 by volume (the binder material per 1 unit of the abrasive particles is not less than 0.5 unit), and proportions of the abrasive particles, the binder, and porosity are, respectively, not less than 10%, not more than 60% and 10-40% by volume.

58. **(Original)** A method according to claim 54, wherein said dressing process is conducted under supplying water.

59. **(Previously Presented)** A method according to claim 54, wherein the dresser comprises diamond particles.

60. **(Previously Presented)** A method according to claim 59, wherein the dresser comprises the diamond particles electro-deposited in a nickel base.

61. **(Original)** A method according to claim 54, wherein said dressing process further comprises removing residual particles from the dressed abrading surface.

62. **(Previously Presented)** A method according to claim 61, wherein said removing process comprises pressing and rotating a flat tool against the abrading surface.

63. **(Previously Presented)** A method according to claim 61, wherein the flat tool comprises a blanket wafer, a quartz glass substrate, or a ceramic substrate.

64. **(Previously Presented)** A method according to claim 61, wherein said removing process comprises washing the abrading surface using a brush while flowing a liquid thereon.

65. **(Previously Presented)** A method according to claim 61, wherein said removing process comprises applying a pressured fluid on the abrading surface.

66. **(Previously Presented)** A method according to claim 65, wherein a pressure of the pressured fluid is less than 5 kgPa.

67. **(Previously Presented)** A method according to claim 61, wherein said removing process comprises applying an ultrasonic fluid on the abrading surface.

68. **(Previously Presented)** A method for polishing an object using an abrading surface made of abrasive particles and a binder binding the abrasive particles, said method comprising:

dressing the abrading surface by a dresser prior to a polishing process until a surface roughness of the abrading surface is less than $\pm 30\mu\text{m}$; and

pressing the object against the abrading surface and polishing the object by making a sliding motion between a surface of the object and the abrading surface.

69. **(Previously Presented)** A method according to claim 68, wherein the dresser comprises a diamond dresser having diamond particles of #100 size.

70. **(Canceled)**

71. **(Previously Presented)** A method for polishing an object using an abrading surface made of abrasive particles and a binder binding the abrasive particles, said method comprising:

dressing the abrading surface by a diamond dresser for moderately roughening the abrading surface;

pressing the object against the abrading surface and polishing the object by making a sliding motion between a surface of the object and the abrading surface,

wherein a pressure between the abrading surface and the dresser is less than 100g/cm².

72. **(Previously Presented)** A method according to claim 71, wherein the pressure of said dressing process is less than 50g/cm².

73. **(Previously Presented)** A method according to claim 71, wherein the dresser comprises a diamond dresser having diamond particles of #200 size.

74. **(Previously Presented)** A method for polishing an object using an abrading surface made of abrasive particles and a binder binding the abrasive particles, said method comprising:
polishing a surface of the object by pressing the object against the abrading surface and making a sliding motion between the surface of the object and the abrading surface; and
dressing the abrading surface by a dresser for roughening the abrading surface during said polishing process to generate free abrasive particles from the abrading surface.

75. **(Original)** A method according to claim 74, wherein said polishing process comprises a first stage polishing which is conducted without dressing, and a second stage polishing which is conducted with dressing.

76. **(Previously Presented)** A method according to claim 74, wherein said polishing process is conducted while supplying a liquid not containing abrasive particles.

Claim 77 (Canceled)

78. **(Previously Presented)** A method for polishing an object having a raised and depressed pattern thereon, said method comprising:

pressing the object against an abrading surface comprising abrasive particles and a binder binding the abrasive particles;

polishing a surface of the object by making a sliding motion between the surface of the object and the abrading surface; and

supplying a liquid including a surface activator during the sliding motion.

Claims 79-81 (Canceled)

82. **(Previously Presented)** An apparatus for polishing an object using an abrading surface made of abrasive particles and a binder binding the abrasive particles, said apparatus comprising:
a holder for holding the object;
a mechanism for pressing the object against the abrading surface and making a sliding motion between a surface of the object and the abrading surface; and
a dresser for dressing the abrading surface prior to a polishing process to shape the abrading surface.

83. **(Previously Presented)** An apparatus according to claim 82, wherein a surface roughness of the abrading surface is less than $\pm 30\mu\text{m}$ after the dressing process.

84. **(Previously Presented)** An apparatus according to claim 82, wherein the abrading surface is a surface of an abrading plate, the abrading plate being shaped by pressing while in a container in during a manufacturing process of the abrading plate.

85. **(Previously Presented)** An apparatus according to claim 84, wherein a ratio of the abrasive particles and the binder material is 1:x, where x is not less than 0.5 by volume (the binder material per 1 unit of the abrasive particles is not less than 0.5 unit), and proportions of the abrasive particles, the binder, and porosity are, respectively, not less than 10%, not more than 60% and 10-40% by volume.

86. **(Previously Presented)** An apparatus according to claim 82, further comprising a device for supplying water during the dressing process.

87. **(Original)** An apparatus according to claim 82, wherein said dresser comprises diamond particles.

88. **(Previously Presented)** An apparatus according to claim 87, wherein said dresser comprises said diamond particles electro-deposited in a nickel base.

89. **(Original)** An apparatus according to claim 82, further comprising a residual particles removing device for removing residual particles from the dressed abrading surface.

90. **(Previously Presented)** An apparatus according to claim 89, wherein said residual particles removing device comprises a flat tool for pressing and rotating against the abrading surface.

91. **(Original)** An apparatus according to claim 90, wherein said flat tool comprises a blanket wafer, a quartz glass substrate, or a ceramic substrate.

92. **(Previously Presented)** An apparatus according to claim 89, wherein said residual particles removing device comprises a brush for washing the abrading surface while flowing a liquid thereon.

93. **(Previously Presented)** An apparatus according to claim 89, wherein said residual particles removing device comprises a pressured fluid ejector for applying a pressured fluid on the abrading surface.

94. **(Previously Presented)** An apparatus according to claim 93, wherein a pressure of the pressurized fluid is less than 5 kgPa.

95. **(Previously Presented)** An apparatus according to claim 89, wherein said residual particle removing device comprises an ultrasonic source for applying an ultrasonic energy to a fluid on the abrading surface.

96. **(Previously Presented)** An apparatus for polishing an object using an abrading surface made of abrasive particles and a binder binding the abrasive particles, said apparatus comprising:

a holder for holding the object;
a mechanism for pressing the object against the abrading surface and making a sliding motion between a surface of the object and the abrading surface; and
a diamond dresser for dressing and roughening the abrading surface;

wherein a pressure applied by said dresser against the abrading surface is less than 100g/cm².

97. **(Previously Presented)** An apparatus according to claim 96, wherein the pressure of said dresser is less than 50g/cm².

98. **(Previously Presented)** An apparatus according to claim 97, wherein said dresser comprises a diamond dresser having diamond particles of #200 size.

99. **(Previously Presented)** An apparatus for polishing an object using an abrading surface made of abrasive particles and a binder binding the abrasive particles, said apparatus comprising:

a holder for holding the object;

a mechanism for polishing a surface of the object by pressing the object against the abrading surface and making a sliding motion between a surface of the object and the abrading surface;

a dresser for dressing the abrading surface for roughening the abrading surface during the polishing process to generate free abrasive particles from the abrading surface.

100. **(Previously Presented)** An apparatus according to claim 99, further comprising a controller for sending a signal for switching between a first stage polishing which is conducted without dressing, and a second stage polishing which is conducted with dressing.

101. **(Previously Presented)** An apparatus according to claim 99, wherein the polishing process is conducted while supplying a liquid not containing abrasive particles.

102. **(Previously Presented)** A method according to claim 1, wherein the object is a semiconductor wafer having a raised and depressed pattern thereon.

103. **(Previously Presented)** A method according to claim 1, wherein the object is held by a same holder during said polishing and said further polishing.

104. **(Original)** An apparatus according to claim 5, wherein said abrading surface comprises a surface of an abrading plate.

105. **(New)** A method according to claim 74, wherein the dresser comprises a diamond dresser.

106. **(New)** An apparatus according to claim 99, wherein the dresser comprises a diamond dresser.